

REMARKS

Claims 1-6, 8-13, 15-23 and 25-31 have been rejected under 35 U.S.C. § 103 as being obvious over Pedoeem in view of Hedstrom or Erickson or Morgan. Claims 7 and 24 have been rejected under 35 U.S.C. § 103 as being obvious over Pedoeem. Claim 14 has been rejected under 35 U.S.C. § 103 as being obvious over Pedoccm in combination with Gidseg. Applicant respectfully traverses these rejections and requests reconsideration of the claims.

No amendment has been made to the claims.

The present application includes independent claims 1, 13, 25 and 29. Claims 1 and 25 provide that the door leaf is mounted and fully enclosed "within" the door. Claim 13 provides that one of the hinge pins is substantially hidden "within" the door. Claim 29 provides that the door leaf is mounted "within" the door. As used in the claims, "within" means "inside" the door. This interpretation is supported by the specification, which must be considered in interpreting the claims, as explained by the well-known 2005 Phillips decision by the *en banc* Court of Appeals for the Federal Circuit decision. In particular, page 3, line 19 of the Specification expressly states, "The door leaf 18 is mounted inside the door 14" This interior mounting of the door hinge 18 within the door is clearly shown in Figures 4 and 5 of the drawings. See also page 3, lines 22-23 which provides that the curved arm 28 of the intermediate leaf 22 extends "through an opening 32 in the door 14", as seen in Figures 4 and 5, and thus implying that one end of the intermediate leaf 22 is necessarily inside the door. Also, original claim 11 provides that the intermediate leaf includes a first end "within" the door and a second end outside the door, thus implying that "within" the door is "inside" the door, as opposed to the second end of the intermediate leaf which is outside the door. Also, original claims 12 and 22 refer to the opening in the door through which the curved portion of the intermediate leaf extends, again implying

that a portion of the intermediate leaf must be inside the door, since the leaf extends through the door. Furthermore, original claim 17 provides that the intermediate leaf has a first end "inside the door, and a second end outside the door." Since the intermediate leaf is connected to the door leaf, and since one end of the intermediate leaf is inside the door, then the door leaf is also inside the door. Therefore, claim 17 further supports the interpretation of the claim term "within" as meaning "inside". Such interpretation is also consistent with the common ordinary meaning of "within", particularly as understood by a person having skill in the door hinge art.

Contrary to the Examiner's assertion that the Pedoeem door leaf is within the door, it is clear from the Pedoeem drawings that the door leaf 103 is on the outside of the door. In particular, as seen in Figure 2, the cabinet 201 extends to the left of the drawing (to the top, if the drawing is oriented in a landscape position), such that the front of the cabinet faces the right side of the drawing (or bottom in a landscape orientation). Similarly, the front or exterior of the Pedoeem door 202 faces the right side of Figure 2, with the interior of the door facing the left side of Figure 2. With this understanding of the orientation of the Pedoeem door 202, it is clear that the door hinge 103 and the first pin 116 are on the exterior of the door 202, and not within or inside the door 202, as required by each of the independent claims 1, 13, 25 and 29.

The Examiner acknowledges that Pedoeem does not have the door leaf or first pin "fully enclosed within the door", as claimed. Applicant notes that only claims 1 and 25 require the door leaf to be "fully enclosed" within the door. Independent claim 13 provides that one of the hinge pins is "substantially hidden within the door" and claim 29 provides that the door leaf is mounted "within the door". Despite the differences in claim terminology, the analysis of Pedoeem is the same for each of the independent claims.

The Examiner suggests that hidden hinge leafs and hinge pins are well known, citing Hedstrom, Erickson and Morgan. Applicant agrees that hidden leafs and hinge pins are known in the art, but disagrees that it would be obvious to provide Pedoeem with a door hinge or pin mounted within, or inside, the door. The Pedoeem door 202 would have to be substantially modified, and the connection of the door leaf 103 and position of the first pin 116 would have to be rearranged so as to be positioned within or inside the door, in accordance with the claims. However, there is no teaching or suggestion in the cited references as to how the Pedoeem door, door leaf, and first pin would be modified so as to meet the structural limitations of the independent claims regarding the inside position of the door leaf or first pin within the door. Applicant notes that in each of Hedstrom, Erickson and Morgan, the door leaf is mounted on the edge of the door. In other words, in Hedstrom, Erickson and Morgan, the door leaf is mounted to a surface which is perpendicular to the front and rear faces of the door. In comparison, in Pedoeem, the door leaf 103 is mounted to a surface which is substantially parallel to the front face of the door 202. It is unclear from the teachings of Hedstrom, Erickson and Morgan as to how Pedoeem would be modified so that the door leaf 103 is mounted on the edge of the door 202, as opposed to a forwardly facing surface of the door. It is not an obvious modification to change the mounting surface for the hinge leaf from a parallel surface to a perpendicular surface.

As the Federal Circuit has explained, it is not obvious to modify a prior art device in a manner inconsistent with the prior art reference. In re Gorden, 733 F.2d 900, 902 (Fed. Cir. 1984). The Federal Circuit has further explained, "Under § 103, teachings of references can be combined only if there is some suggestion or incentive to do so. . . . The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." (*emphasis added*). In

re Fritch, 972 F.2d 1260, 1266 (Fed Cir. 1992). More particularly, the Federal Circuit has stated that for a § 103 obviousness rejection based upon a combination of patents, there must be "some objective teaching" leading to the combination. Fritch, 972 F.2d at 1265. As further explained by the Federal Circuit at In re Dembiczak, 175 F.3d 994, 999 (Fed. Cir. 1999), this showing must be "clear and particular."

Also, as further stated by the Federal Circuit, "an Examiner cannot establish obviousness by locating references which describe various aspects of a patent applicant's invention without also providing evidence of the motivating force which would compel one skilled in the art do what the patent applicant has done." Ex parte Levengood, 28 U.S.P.Q.2d 1300, 1302 (Fed. Cir. 1993).

As the Board of Patent Appeals and Interferences has stated, citing references which merely indicate that isolated elements and/or features recited in claims are known is not sufficient basis for concluding that the combination of claimed elements would have been obvious." Ex parte Hiyanizu, 10 U.S.P.Q.2d 1393, 1394 (B.P.A.I. 1988).

In short, as stated by the Federal Circuit,

"It is wrong to use the patent-in-suit as a guide through the maze of prior art references, combining the right references in the right way so as to achieve the result of the claims-in-suit." Orthopedic Equipment Company v. United States, 702 F.2d 1005, 1012, 217 U.S.P.Q. 193, 199 (Fed. Cir. 1983).

Here, there is no clear and particular, objective teaching in the cited references for changing the exterior position of the Pedoeem door leaf 103 and first pin 116 to a position inside the door 202. Therefore, the § 103 obviousness rejection by the Examiner cannot stand, and must be withdrawn. Each of the independent claims 1, 13, 25 and 29 distinguish over the cited references, so as to be in proper form for allowance, along with the claims depending therefrom.

If the Examiner desires to change the word "within" to --inside-- in the independent claims, Applicant hereby authorizes the Examiner to do so by Examiner's Amendment, if this amendment is necessary for allowance of the claims.

Independent claim 13 also distinguishes over the secondary references with the requirement that one of the hinge pins be "substantially hidden within the door". As seen in each of Hedstrom, Erickson and Morgan, the hinge pins are clearly visible when the door is open. The pins are only "hidden" when the door is closed such that the cabinet blocks the pin from view. Thus, the pins of the secondary references are not "hidden" within the door in accordance with claim 13.

Independent claim 25 further distinguishes over the references, due to the requirement of "means for controlling the order of operation of the leaves". Pursuant to 35 U.S.C. § 112(6) this "means" clause must be interpreted to mean that structure which is disclosed in the specification, and equivalents thereto. This means is the cam ramp 38 described in the Specification at page 4, lines 6-14, and equivalents thereto. The cam ramp 38 is best seen in Figure 8. The Examiner suggests that Pedoeem has a cam ramp 110 which meets this limitation. However, element 110 of Pedoeem is described as a step or notch, and not a ramp. See Pedoeem, column 2, lines 46-48. A ramp is an inclined surface. A step or a notch is not a ramp or an inclined surface. Therefore, the Examiner's interpretation of Pedoeem is erroneous. Accordingly, claim 25 further distinguishes over Pedoeem so as to be allowable. Claims 28 and 31 specifically require a cam ramp, such that these claims also distinguish over Pedoeem.

Independent claim 29 further distinguishes over Pedoeem, with the requirement for the "torsional resistance between the cabinet leaf and the intermediate leaf being greater than the torsional resistance between the door leaf and the intermediate leaf". This torsional resistance is

due to the weight of the door and the cam ramp, and assures that the door leaf and intermediate leaf close first, followed by closing of the intermediate and cabinet leaves, as described in the Specification at page 4, lines 8-14. The Examiner correctly states at the bottom of page 2 and the top of page 3 of the Office Action, that in Pedoeem, the intermediate leaf pivots about the second pin, and "then the door leaf pivots about the first pin when opening the door". This order of movement appears to be due to frictional differences between the hinge leaves and hinge pins, since the door pin 116 has substantially more surface contact area with the door and intermediate leaves 103, 102 than the cabinet pin 109 has with the cabinet and intermediate leaves 101, 102. This frictional resistance will also cause the leaves to close in the same order, that is, the door and intermediate leaves 103, 102 closing second. Thus, Pedoeem closes in the opposite or reverse order as compared to the present invention, contrary to the torsional resistance limitation of claim 29. There is no discussion in Pedoeem of torsional resistance between the hinge leaves. Therefore, claim 29 further distinguishes over Pedoeem so as to be allowable.

Dependent claims 7 and 24 each require that the hinges, or the hinge leaves, allow the door to swing approximately 270°. The Examiner suggests in item 3 of the Office Action at page 4 that it would be obvious to one having ordinary skill in the art at the time the invention was made to modify the Pedoeem reference to allow for a swing of 270°, even though Pedoeem explicitly teaches a swing of 180°. The Examiner cites no other references in combination with Pedoeem to achieve the 270° swing required by claims 7 and 24. Applicant respectfully notes that in Pedoeem, 270° of rotation is not achievable, even if the stops are removed. As Pedoeem explains at column 3, lines 65-column 4, line 4, the stop arrangement prevents the door 202 from rotating beyond 180°, thereby preventing damage to the style strip 203 and any adjacent cabinet surfaces. Pedoeem expressly teaches against rotation beyond 180°. The Federal Circuit has

clearly explained that an obviousness rejection must be based upon objective evidence of record. In re Lee, 277 F.3d 1338, 1343 (Fed Cir. 2002). Subjective belief and unknown authority is insufficient. Id. at 1443-44. Furthermore, common knowledge or common sense is an erroneous basis upon which to assert obviousness. Id. at 1344. Thus, the Examiner's unsupported subjective conclusion that Pedoeem can be modified to change the swing from 180° to 270° based upon "routine skill in the art", without citing any objective evidence of record, cannot support an obviousness rejection of claims 7 and 24. Therefore, the § 103 rejections of claims 7 and 24 must be withdrawn.

Dependent claim 14 provides for a rod interconnecting the pair of hinges. The Examiner suggests that the Gidseg patent meets this limitation. However, to the contrary, there is no rod interconnecting the hinge brackets 26, 28 of Gidseg. As described in Gidseg at column 5, lines 24-30 and as shown in Figure 2, the hinge brackets 26, 28 are received in grooves in the upper and lower frame members 11, 13. The side frame member 15 has upper and lower slots 20 through which the hinge brackets 26, 28 extend. There is no rod extending between the hinge brackets 26, 28 of Gidseg. Even if an elongated hinge pin extends between the hinge brackets 26, 28, such a pin does not constitute a rod in accordance with claim 14, since the hinge pin and the rod are separate and distinct elements. Claim 13, from which claim 14 depends, expressly requires first and second pivot pins for the hinges, such that the rod of claim 14 is not the same structure as the hinge pins. Since Gidseg does not have a rod extending between the hinge brackets 26, 28, claim 14 further distinguishes over the references so as to be in proper form for allowance.

In view of the foregoing, the § 103 obviousness rejections of the claims should be withdrawn, since the claims clearly distinguish over the cited references, alone or in combination. Accordingly, Applicant respectfully requests that a Notice of Allowance be issued.

Since there are no changes to the claims, this Amendment After Final should be entered. No fees or extensions of time are believed to be due in connection with this amendment; however, consider this a request for any extension inadvertently omitted, and charge any additional fees to Deposit Account No. 26-0084.

Reconsideration and allowance is respectfully requested.

Respectfully submitted,



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